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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Zili Li

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EXAMINER

KIM, RICHARD H

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/001,495	Applicant(s) LI ET AL.	
	Examiner Richard H. Kim	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-15 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 and 17-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (US 6,204,908 B1) in view of Kozaki (US 5,742,367) and Doane et al. (US 6,518,944 B1).

Referring to claims 1 and 2, Hashimoto et al. discloses a device comprising a reflective liquid crystal display having a backside and a front side (Fig. 1) and having one of selectively reflecting cholesteric and polymer dispersed liquid crystal (12), wherein at least some light passes from the front side and through the backside of the reflective liquid crystal display (col. 3, lines 37-60), wherein at least some of the light passing from the front side and through the backside of the reflective liquid crystal display will not pass through a polarizing layer (Fig. 1). However, the reference does not disclose that at least some light passing from the front side and through the backside of the liquid crystal display will illuminate a substantially uniformed dark-colored light receiving surface of a solar cell.

Kozaki discloses a device comprising a device wherein least some light passing from the front side and through the backside of the liquid crystal display will illuminate a substantially uniformed dark-colored light receiving surface of a solar cell (col. 3, lines 7-

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11). Doane et al. discloses solar cells that are substantially uniformly dark-colored (col. 4, lines 30-42).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the light absorbing member of Hashimoto et al. with the light-receiving active surface of Kozaki (col. 2, lines 9-10), thereby utilizing natural solar light as a means for charging a power source. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the solar cells to be substantially dark since one would be motivated to reduce reflections of the solar cell surface (col. 4, lines 40-42).

3. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. and Kozaki in view of Vogeley et al. (US 5,404,185).

Hashimoto et al. Kozaki discloses the device previously recited, but fails to disclose a wireless communication device having a user interface operably coupled to the reflective liquid crystal display, and an electricity output of the solar cell is operably coupled to the reflective liquid crystal display.

Vogely discloses a wireless communication device having a user interface operably coupled to the reflective liquid crystal display (col. 3, lines 18-22). Kozaki discloses an electricity output of the solar cell operably coupled to the reflective liquid crystal display (col. 3, lines 1-11).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a wireless communication device having a user interface operably coupled to the reflective liquid crystal display since one would be

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motivated to eliminate the need for external cables connected to the display (col. 3, lines 19-22). Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the electricity output of the solar cell to be operably coupled to the reflective liquid crystal display since one would be motivated to power the liquid crystal display (col. 3, lines 11-34).

*Allowable Subject Matter*

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to teach or disclose the device wherein the solar cell has a light-receiving inactive surface that has a different color than the substantially uniform dark-colored light-receiving active surface, wherein the device further comprises a mask having apertures that substantially conform topographically to the light-receiving active surfaces of the solar cell and mask surfaces that substantially conform to at least some of the light-receiving inactive surface and that have a color that substantially matches the substantially uniform dark-colored light-receiving active surface of the solar cell.

***Response to Arguments***

6. In response to Applicant's argument that since Hashimoto et al teaches an anisotropic light scattering layer, there would be no motivation to add the solar cell, Examiner submits that at least some of light would pass through the liquid crystal cell which would enable the solar cell to charge a battery.

7. Applicant's arguments with respect to claims 1, 2 and 4-7 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H. Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Richard H Kim  
Examiner  
Art Unit 2871

RHK

*Andrew Schechter*  
ANDREW SCHECHTER  
PRIMARY EXAMINER